



May River Watershed Action Plan Advisory Committee Meeting

Thursday, January 25, 2024 at 3:00 PM

Theodore D. Washington Municipal Building, Henry "Emmett" McCracken Jr. Council Chambers,
20 Bridge Street, Bluffton, SC

AGENDA

I. CALL TO ORDER

II. ROLL CALL

III. ADOPTION OF THE AGENDA

- [1.](#) Adoption of January 25th, 2024 Agenda

IV. ADOPTION OF MINUTES

- [1.](#) Adoption of September 28, 2023 Minutes

V. PRESENTATIONS, CELEBRATIONS, AND RECOGNITIONS

- [1.](#) Presentation on Town of Bluffton Stormwater Program - Beth Lewis, Water Quality Program Manager

VI. PUBLIC COMMENT

VII. OLD BUSINESS

- [1.](#) May River Watershed Action Plan Project Implementation Status Report - Dan Rybak, Project Manager
- [2.](#) Progress Report on the May River Watershed Baseline Assessment - Beth Lewis, Water Quality Program Manager
3. Development of the Strategic Plan Priority Five (5) to Establish an Agreement with Beaufort County to Implement the May River Watershed Action Plan within the County's Jurisdiction of the Watershed for Both Structural Stormwater Projects and Non-Structural Programs such as Implementing the Green Print Map within the Rural & Critical Lands Program - Beth Lewis, Water Quality Program Manager

VIII. NEW BUSINESS

- [1.](#) Adoption of 2024 Meeting Dates and Times – Beth Lewis, Water Quality Program Manager

IX. DISCUSSION

X. ADJOURNMENT

NEXT MEETING DATE: Proposed February 22, 2024

“FOIA Compliance – Public notification of this meeting has been published and posted in compliance with the Freedom of Information Act and the Town of Bluffton policies.”

In accordance with the requirements of Title II of the Americans with Disabilities Act of 1990 ("ADA"), the Town of Bluffton will not discriminate against qualified individuals with disabilities on the basis of disability in its services, programs, or activities. The Town of Bluffton Council Chambers are ADA compatible. Auditory accommodations are available. Any person requiring further accommodation should contact the Town of Bluffton ADA Coordinator at 843.706.4500 or adacoordinator@townofbluffton.com as soon as possible but no later than 48 hours before the scheduled event.

Executive Session – The public body may vote to go into executive session for any item identified for action on the agenda.

**Please note that each member of the public may speak at one public comment session and a form must be filled out and given to the Town Clerk. To submit a public comment online, please click here:*

<https://www.townofbluffton.sc.gov/FormCenter/Town-15/Public-Comment-60>

Public comment is limited to 3 minutes per speaker.



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**TOWN OF BLUFFTON MAY RIVER WATERSHED ACTION PLAN ADVISORY
COMMITTEE**
Orlando Conference Room, Town Hall
Thursday, September 28th, 2023

Present: Stan Rogers, Chair; Al Stokes, Vice-Chair; Chris Shoemaker; Amber Kuehn; Jessie White

Absent: Larry Toomer

Staff: Beth Lewis; Bill Baugher; Nicole Wright

Guest: Will Howard; Mike Hughes

Media: None

I. CALL TO ORDER

1. Mr. Rogers, Chair, called the meeting to order at 3:05 PM.

II. NOTICE REGARDING POSTING OF MEETING PER SOUTH CAROLINA FREEDOM OF INFORMATION (FOIA) REQUIREMENTS

III. ROLL CALL AND CONFIRMATION OF QUORUM

1. Members introduced themselves.

IV. ADOPTION OF AGENDA

1. Mr. Stokes moved to adopt the Agenda as presented. Mr. Shoemaker seconded the motion. Unanimous ayes.

V. APPROVAL OF MINUTES

1. Adoption of August 24th, 2023 Minutes

Mr. Stokes moved to adopt the July 27, 2023, Minutes. Mr. Shoemaker seconded the motion. Unanimous ayes.

VI. PUBLIC COMMENTS

None

VII. OLD BUSINESS

1. Consideration of WAPAC Strategic Plan Priorities for FY25-26 – Beth Lewis, Water Quality Program Manager

Ms. Lewis facilitated discussion of the previous Strategic Plan Priority the committee had made. The committee decided they wanted to not edit the current Strategic Plan Priorities and roll them over for the next fiscal year as long as they were listed out in the Strategic Plan. Ms. White moved for WAPAC to recommend the list of Fiscal Year 2025-2026 Strategic Plan Priorities as discussed. Ms. Kuehn seconded the motion. Unanimous ayes.

VIII. NEW BUSINESS

1. Development of the Strategic Plan Priority Five (5) to Establish an Agreement with Beaufort County to Implement the May River Watershed Action Plan

within the County's Jurisdiction of the Watershed for Both Structural Stormwater Projects and Non-Structural Programs such as Implementing the Green Print Map within the Rural & Critical Lands Program - Beth Lewis, Water Quality Program Manager

The committee began discussing what the goals for this priority would be. They first reviewed the Green Space Memorandum the committee wrote and put forward to Town Council in April of 2023 (attachment 1) that recommended the formation of a Green Space Policy and Program within the Town of Bluffton to see what overlap may be present between the two priorities. The committee decided their goal for this priority is to get Beaufort County to agree to formally follow the May River Watershed Action Plan and implement some of the programs and projects laid out within it. One of those programs is to increase septic to sewer conversion within the County. Mr. Baugher explained the methods and programs the Town uses to try and increase the amount of sewer connections within its jurisdiction. The committee requested further information on which areas within the Town and County have already converted to sewer, and Mr. Baugher said he would work on gathering that information for them and he would reach out to a representative at Beaufort County to come and speak about their sewer conversion program. The committee also requested Mr. Baugher present on the current Town's Stormwater and MS4 program as well as the land ordinances that exist within the Town.

IX. DISCUSSION

No Discussion

X. ADJOURNMENT

Unanimous decision to adjourn at 4:28 P.M. Next Meeting: October 26, 2023 @ 3:00 P.M. in the Town of Bluffton Council Chambers.

Attachments:

1. Green Space Memorandum



MEMORANDUM

TO: Town Council

FROM: Stan Rogers, Chair, May River Watershed Action Plan Advisory Committee (WAPAC)

RE: WAPAC Recommendation to Establish a Town of Bluffton Green Space Policy and Program

DATE: JANUARY 26, 2023

CC: Stephen Steese, Town Manager
Heather Colin, Assistant Town Manager
Kim Washok-Jones, Director of Projects & Watershed Resilience
Bill Baugher, Watershed Management Division Manager
Beth Lewis, Water Quality Program Administrator

As voted on during the January 26, 2023, meeting, WAPAC hereby recommends that the Town of Bluffton develop a Green Space Policy and Program to protect and restore shellfish harvesting and water quality in the May River and achieve broader community and conservation benefits and address growth challenges. The Town's policy and program should:

- Create a land preservation, conservation and/or development rights purchasing and retiring program to meet goals of the May River Watershed Action Plan and achieve broader community and conservation benefits beyond the scope of the May River Watershed Action Plan;
- Develop program framework and guidance for prospective partners and participants;
- Clarify roles and responsibilities across Town of Bluffton Departments and within the Projects and Watershed Resilience Department to achieve the greatest efficiency and impact;
- Establish funding mechanisms within the Town of Bluffton's annual budget process;
- Identify and pursue external funding opportunities such as federal, state, and other local government programs and grants;
- Identify key federal, state, and local partners to implement the program;

- Establish criteria to identify and prioritize prospective properties for conservation and protection consistent with Beaufort County's Rural and Critical Lands Program;
- Develop, integrate, and socialize tools such as geographic information system (GIS) layers to:
 - Overlay Beaufort County Green Print Plan maps, South Carolina Conservation Bank maps, and other accredited land trust mapping tools with the Town of Bluffton land use maps;
 - Use associated model outputs that target possible Capital Improvement Program (CIP) project areas to improve water quality; and
- Provide comprehensive outreach of the program including policy and guidance, and the benefits of participation to landowners and developers.

If implemented, WAPAC believes, a Green Space Policy and Program will help achieve May River Watershed Action Plan objectives.

TOWN OF BLUFFTON'S STORMWATER MANAGEMENT PROGRAM





AGENDA

Introduction

Meet Our Watershed Team

MS4 Program

Water Quality Monitoring Programs

Comprehensive Drainage

Resiliency

Review

Agreements with Beaufort County

INTRODUCTION

The Town of Bluffton's Watershed Management Division, within the Department of Projects and Watershed Resilience, is directly responsible for developing, implementing, and promoting initiatives in support of the Town's Comprehensive Plan and Strategic Plan, specifically Focus Area:

The May River and Surrounding Rivers and Watersheds.

Division Mission:

To understand, strengthen, and preserve the relationships between our community and its watersheds. Our Vision is to establish Bluffton as a regionally- and nationally-recognized leader in watershed management through local actions.



MEET OUR WATERSHED TEAM



**WILLIAM
"BILL" BAUGHER**
Division Manager



**BETH
LEWIS**
Water Quality Program Manager



**ANDREA
MORENO**
MS4 Program Manager



**DAN
RYBAK**
Watershed Project Manager



**CHRISTINA
HURD**
Stormwater
Coordinator/Field Assistant



**SAMANTHA
"SAM" CROTTY**
Stormwater Permit
Administrator



**JOSEPH
"JOE" SEASE**
Stormwater
Inspector



**NICOLE
WRIGHT**
Stormwater
Technician

MS4 PROGRAM

ANDREA MORENO



WHAT IS AN MS4?

Municipal Separate Stormwater Sewer System (MS4) refers to a system of conveyances (man-made channels & ditches, curbs, underground storm drains, etc.) owned by a municipality, county, or other public entity that is used to collect & discharge stormwater to the waters of the U.S., such as streams, rivers, and estuaries.

WHY IS BLUFFTON DESIGNATED AN MS4?



In 1987, amendments to the Clean Water Act obligated the Environmental Protection Agency (EPA) to require urban areas to regulate stormwater. The census defines where these urban areas are, and in 2010 the Census revealed that the Town's population met the definition and thus the Town fell within the purview of these requirements. The Town received its permit in 2015.



WHAT DOES THIS MEAN?

The EPA and the South Carolina Department of Health & Environmental Control (SCDHEC) are responsible for oversight of all MS4 communities. The Town of Bluffton must comply with regulations set forth by these federal & state agencies. The Town's MS4 Stormwater Management Program must include six (6) minimum control measures (MCM's).

MINIMUM CONTROL MEASURES (MCM'S)





PUBLIC EDUCATION & OUTREACH

MCM#1 REQUIREMENTS

As an MS4, the Town is mandated to identify pollutant(s) of concern (POC) within its defined watershed area(s), identify target audience(s), and provide public education on these POC to the target audience(s).

LOWCOUNTRY STORMWATER PARTNERS

Clemson Extension, Beaufort County, the Town of Bluffton, the Town of Hilton Head Island, the City of Beaufort, and the Town of Port Royal have partnered alongside other organizations to form the Lowcountry Stormwater Partners consortium (LSP). LSP's purpose is to coordinate and implement a regional, watershed-scale education strategy, based on criteria identified in the LSP Stormwater Outreach Strategic Plan.



**LOWCOUNTRY
STORMWATER
PARTNERS**
By Clemson Extension

Stormwater Outreach Strategic Plan: 2024-2028



Bacteria

CONTRIBUTING ISSUE	TARGET AUDIENCE	TARGET ACTION
The bacteria in dog poop can negatively impact water quality when not properly disposed of by its caretaker.	Dog caretakers	Dog caretakers will pick up after their pets, both on walks and in the yard.
Septic systems that are not operating as designed and/or improperly maintained can contribute bacteria pollution in nearby waterbodies.	Septic systems users	Septic system users will use best management practices to properly operate and maintain their septic systems.

Nutrients

CONTRIBUTING ISSUE	TARGET AUDIENCE	TARGET ACTION
Improperly installed and/or maintained BMPs contribute to erosion and sediment pollution in waterways.	Contractors who install and maintain BMPs for sediment and erosion control.	Contractors will install and maintain sediment and erosion control BMPs properly.
Mowing to the water's edge may cause excess sediments and nutrients to contaminate nearby waterways.	Residents adjacent to water	Residents will let vegetated buffers grow or plant them along shorelines.

Fresh Water

CONTRIBUTING ISSUE	TARGET AUDIENCE	TARGET ACTION
Large areas of impervious surface and gray infrastructure lead to increased stormwater runoff, which can degrade local saltwater habitats and small tidal creeks.	Design professionals, engineers, and developers	Target audience will understand why low-impact development (LID) is important in coastal areas and include more LID in their projects.
Single-family lots, through practices such as over-irrigation, over-fertilization, and a lack of on-site stormwater best management practices (BMPs), can increase stormwater runoff and degrade local saltwater habitat and small tidal creeks.	Individual lot residents	Residents will install BMPs and/or maintain their landscapes in an environmentally sustainable manner.



D

LSP STRATEGIC PLAN

The 2024-2028 LSP Stormwater Outreach Strategic Plan is based on three (3) identified POC (bacteria, nutrients, and fresh water) and their associated contributing action, target audience, and target behavior (goal).

For example, a contributing action for bacteria is dog caregivers not picking up after their pets. In this example, the target audience is pet owners, and the target behavior is to increase the number of pet owners who properly dispose of pet waste.

Education strategies and timelines are outlined to include the message (ex. scoop the poop), the format and distribution of the message (ex. dog waste leash holders), resources (ex. Town staff), and an evaluation of the strategy (ex. Number of dog waste bags distributed).



PUBLIC INVOLVEMENT & PARTICIPATION

MCM#2 REQUIREMENTS

The Town is required to involve the public in the planning and implementation of various MS4 program activities. Specifically, the Town must create opportunities for citizens to participate in the implementation of stormwater controls (e.g., storm drain stenciling and river clean-ups).

TOWN PROGRAMS

To name just a few of the Town programs that focus on public involvement and participation, the Town of Bluffton holds two (2) annual litter clean-ups, has had volunteers mark infrastructure as part of the storm drain stenciling program, has worked with students and volunteers to build and deploy floating wetlands, and actively encourages citizens to utilize the Town's reporting app, SeeClickFix.



ILLICIT DISCHARGE DETECTION & ELIMINATION (IDDE)

Section V. Item #1.

MCM#3 REQUIREMENTS

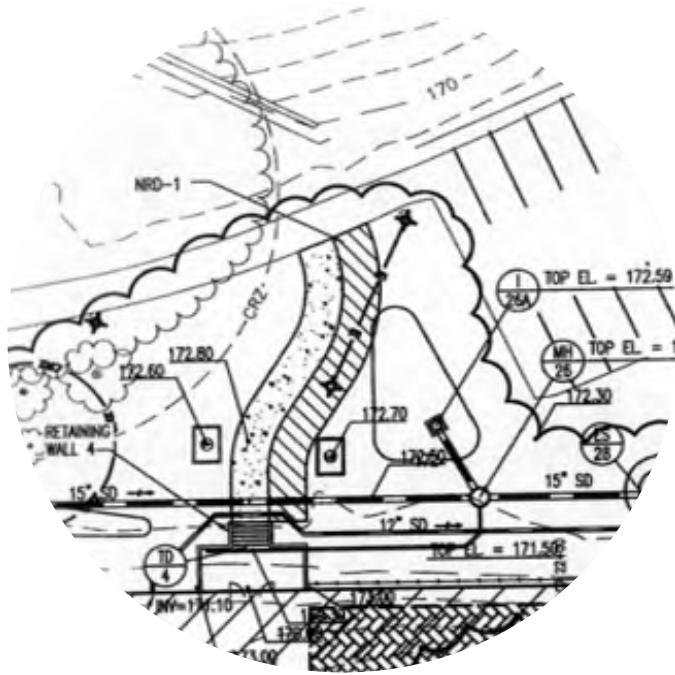
The Town is required to develop, implement, and enforce a program to detect and eliminate illicit (non-stormwater) discharges into the MS4.

DETECTION

This is accomplished through field screening, during both dry and wet weather events, and investigation and elimination, should an illicit discharge be identified. Steps to screen, identify, and report illicit discharges are outlined in the Town of Bluffton's IDDE Standard Operating Procedures (SOP).

ELIMINATION

The removal and enforcement of illicit discharges vary based on the type and the source, as outlined in the Town's IDDE Enforcement Response Plan (ERP).



CONSTRUCTION SITE RUNOFF CONTROL

MCM#4 REQUIREMENTS

The Town is required to develop, implement, and enforce a program to reduce pollutants in any stormwater runoff to the MS4 from construction activities that result in land disturbance of ≥ 1 acre or < 1 acre if part of a larger common plan of development (LCP).

TOWN-SPECIFIC REQUIREMENTS

In addition to the MS4 requirements, the Town's Unified Development Ordinance (UDO) and 2021 Southern Lowcountry (SoLoCo) Stormwater Design Manual require that any development or redevelopment resulting in ≥ 5000 sqft. of impervious surface or ≥ 1 acre of disturbance or sites, regardless of size, that are part of an LCP meet the design standards as outlined in the SoLoCo Manual.

GRADING & DRAINAGE PLANS

Per the Town's UDO, grading/drainage plans are required to be submitted for any land-disturbing activity in excess of 5000 sqft. or an increase in impervious surface in excess of 2000 sqft.

The graphic shows the top half of a book cover. It has a dark blue semi-circular shape at the top. Below it, the title "Southern Lowcountry Stormwater Design Manual" is written in a dark blue serif font. Underneath the title, "Stormwater Best Management Practices" is written in a smaller, lighter blue sans-serif font. The cover is flanked by two light blue curved shapes.

Southern Lowcountry Stormwater Design Manual

Stormwater Best Management Practices

Prepared by



CONSTRUCTION SITE RUNOFF CONTROL (CONT.)

A simple blue outline of a water drop.

STORMWATER REVIEW

After a Preliminary Development Plan has been submitted and approved, the applicant may then submit for a Stormwater Permit.

Grading/drainage plans and stormwater submittal documents for sites meeting UDO and SoLoCo applicability are reviewed for adherence to the provisions of both documents. Applicants are given an opportunity to meet with staff prior to submittal and then once a submittal is received, staff has 20 business days to review it.

Once the Town has completed review of the stormwater permit, MS4 conditional approval is sent to DHEC and DHEC then provides the final approval. The applicant may submit for their Final Development Plan once they have an approved/conditionally approved Stormwater Permit.

A simple blue outline of a water drop.

SOLOCO REQUIREMENTS

Projects subject to SoLoCo must demonstrate heightened design requirements such as achievement of Better Site Design principles, safe conveyance of the 100-yr storm event, on-site retention of the 95th percentile rain event (1.95 in), and the 10% rule analysis.



CONSTRUCTION SITE RUNOFF CONTROL (CONT.)

DELEGATED PLAN REVIEW Section V. Item #1.

Grading/drainage plans and stormwater submittal documents for sites meeting UDO and SoLoCo applicability are reviewed for adherence to the provisions of both documents. For applicable sites, MS4 conditional approval is sent to DHEC and DHEC then provides the final approval.

S&EC INSPECTIONS

Routine erosion and sediment control (E&SC) inspections are conducted monthly by staff holding valid Certified Erosion Prevention and Sediment Control Inspectors (CEPSCI) certifications. These inspections follow procedures as outlined in the E&SC Inspection Standard Operating Procedures (SOP).

E&SC ENFORCEMENT

As described by the Town's E&SC Enforcement Response Plan (ERP), based on the severity of violations identified at the time of the inspection, the course of action differs specifically in terms of the allotted time frame for remediation as well as the proceeding enforcement actions, namely postage of a Stop Work Order and/or issuance of citation and immediate issuance of citation.



POST- CONSTRUCTION RUNOFF CONTROL

MCM#5 REQUIREMENTS

The Town is required to implement a program to ensure the long-term maintenance of structural stormwater controls installed to control stormwater discharges from new development/redeveloped sites that disturb at ≥ 1 acre (including projects that disturb < 1 acre that are part of an LCP) that discharge into the MS4. Sites are to be inspected at least once during the MS4 permit term (5-year cycle).

TOWN-SPECIFIC REQUIREMENTS

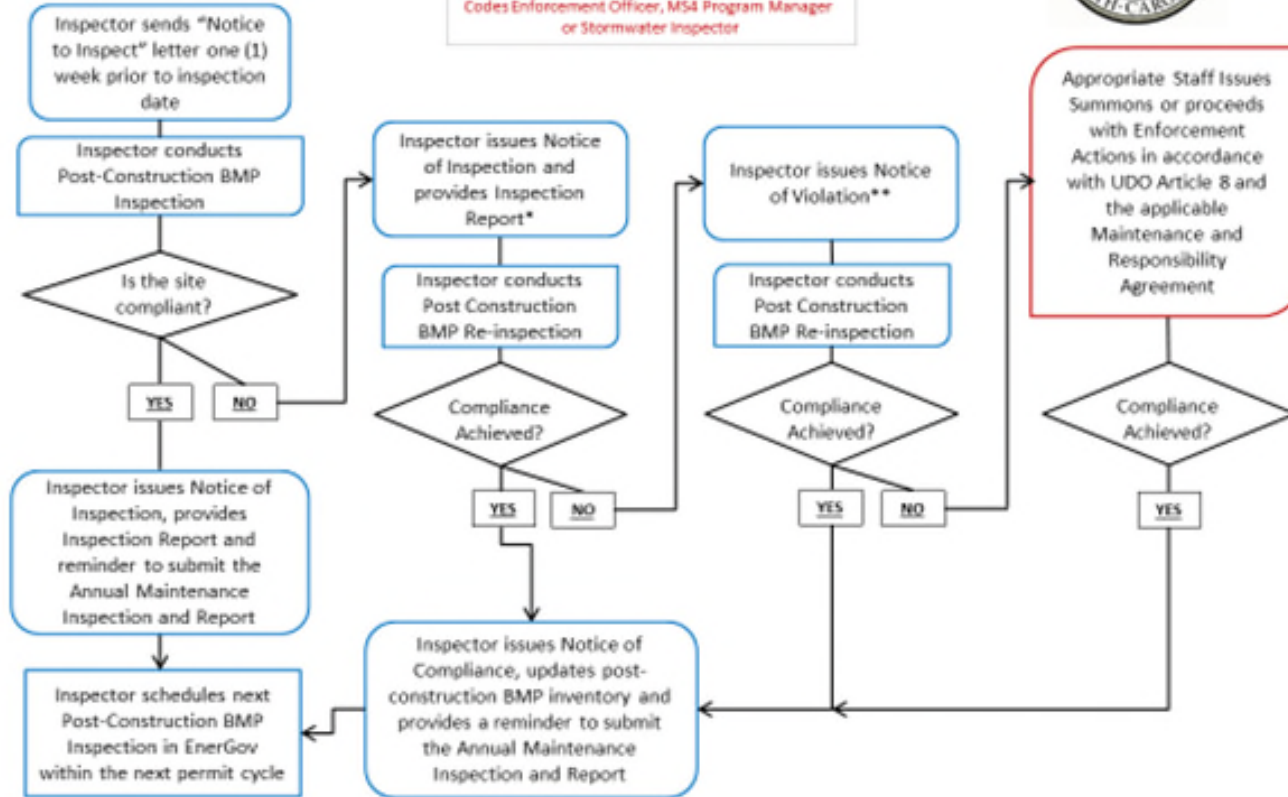
Per the SoLoCo Manual, all sites meeting UDO/SoLoCo applicability are required to undergo a Notice of Termination (NOT) inspection prior to stormwater permit close-out and are then subject a post-construction inspection once every three (3) years.

Prior to project close-out, a best management practice (BMP) operation and maintenance agreement, outlining the specific maintenance tasks and frequency associated with each BMP, is required to be signed and recorded with the plat.

TOWN OF BLUFFTON

Post-Construction SOP Flowchart

Post Construction BMP Inspector
Codes Enforcement Officer, MS4 Program Manager
or Stormwater Inspector



* Provides (60) calendar days post issuance of the Inspection Report to address non-compliant items.

** Provides (30) calendar days post issuance of the Notice of Violation to address non-compliant items.

POST-CONSTRUCTION INSPECTIONS

To ensure that all stormwater BMPs are operating correctly and are being maintained as required consistent with its applicable operation and maintenance agreement, inspections are conducted by staff holding valid Post-Construction BMP Inspector certifications.

POST-CONSTRUCTION ENFORCEMENT

Per the Town's UDO and SoLoCo Stormwater Ordinance, owners who fail to ensure long-term maintenance of structural stormwater BMPs, are subject to enforcement actions including, but not limited to, citations.



POLLUTION PREVENTION / GOOD HOUSEKEEPING

MCM#6 REQUIREMENTS

The Town is required to develop and implement an operation and maintenance program that includes a training component and has the ultimate goal of preventing or reducing pollutant runoff from municipal operations.

TOWN-OWNED OR OPERATED FACILITIES

Staff maintain an inventory of all Town-owned or operated facilities and their associated stormwater BMPs, if any. Each facility is inspected once per permit term (5-year cycle) and any deficiencies are provided via an inspection report to appropriate staff.

STAFF TRAINING

New Town hires are provided with educational materials on IDDE and Good Housekeeping as part of the Town's on-boarding process.

Applicable staff also undergo yearly training on pollution prevention practices.

WATER QUALITY MONITORING PROGRAMS

BETH LEWIS



TOWN MONITORING PROGRAMS

- May River Watershed Action Plan (MRWAP)
- Microbial Source Tracking (MST)
- MS4
- Additional Monitoring Efforts
 - Monthly Historic District Monitoring
 - Capital Improvement Projects (CIP)
 - Weather Stations & Rainfall
 - Harmful Algal Blooms (HAB's)
 - Tidal Elevation

MAY RIVER WATERSHED ACTION PLAN (MRWAP) MONITORING PROGRAM

BETH LEWIS



MRWAP WATER QUALITY MONITORING

Section 5.0 of the MRWAP Model Report included recommendations for the Town to improve upon the existing water quality monitoring program. These recommendations included changes to:

- Bacteria monitoring
- Continuous and intermittent flow data collection
- MST monitoring and source typing



MRWAP BACTERIA MONITORING



Section V. Item #1.

MODEL REPORT STUDY AREA

- Rose Dhu Creek
- Stoney Creek
- Palmetto Bluff
- Duck Pond

Grab Samples:

- Fecal coliform & E. coli bacteria collected two (2) times per month at fourteen (14) sites.
- Total Nitrogen (TN) & Total Phosphorus (TP) collected once (1) per month at eight (8) of these sites.

In-Situ Data:

Utilize a handheld YSI ProDSS at all sampling sites. Monitors for:

- Water Temperature (°C)
- Dissolved Oxygen (mg/L)
- pH
- Salinity (ppt)
- Specific Conductivity (mS/cm)
- Turbidity (NTU)

MRWAP FLOW MONITORING



- Continuous flow utilizing three (3) SonTek IQ-Plus Instruments in the Model Report Study Area (Stoney Creek, Rose Dhu Creek, Palmetto Bluff).
- Water Environmental Consultants (WEC) providing data review.

MRWAP FLOW MONITORING



- Intermittent flow measurements at the time of MRWAP grab sampling.
- Utilize the FlowTracker2
- Collected two (2) times per month in conjunction with bacteria monitoring at six (6) MRWAP monitoring sites.

MRWAP DUCK POND



- Anticipate conducting a water elevation study in FY25 for the Duck Pond subwatershed.
- Confirm that the model geometry is correct (stream cross-sections, culvert sizes, and invert elevations, etc.).
- As there is no measured flow and water level data in this catchment for calibration, it is particularly important that the modeling team confirm that the input model geometry is correct.

MICROBIAL SOURCE TRACKING (MST) MONITORING PROGRAM

BETH LEWIS



MICROBIAL SOURCE TRACKING (MST) MONITORING



MAY RIVER SCDHEC STATIONS

- Coordinate monthly with the South Carolina Department of Health & Environmental Control (SCDHEC) to collect five (5) MST samples from the May River at the time of regulatory shellfish harvesting sampling



MS4 MONITORING

- MST sample collection at all MS4 quarterly sampling locations in the May River Watershed. Analyzed for the human genetic marker (HF183).



SCAT FECAL SAMPLE ANALYSIS

- HF183 and BacHum
- Scat fecal samples from:
 - Bird
 - Dog
 - Deer
 - Horse

MS4 MONITORING

BETH LEWIS



MS4 MONITORING



MAY RIVER WATERSHED

- E. coli, TN, TP, Total Suspended Solids (TSS), and MST (HF183) samples collected once per quarter at nine (9) sites.
- Intermittent flow collected at six (6) of these sites.



BEAUFORT COUNTY SHARED MONITORING

- New River – Fecal coliform, E. coli, Enterococcus, Mercury, TN, TP, and *in-situ*
- Colleton River – Fecal coliform, E. coli, TN, TP, *in-situ*
- Okatie River – Fecal coliform, E. coli, TN, TP, *in-situ*



IDDE INVESTIGATIONS

- Field kits for ammonia, detergents, and HAB's
- Tracing dyes
- Additional parameters as necessary through the USCB Water Quality Laboratory

ADDITIONAL MONITORING EFFORTS

BETH LEWIS



HISTORIC DISTRICT MONITORING



HISTORIC DISTRICT AREA

Section V. Item #1.

- Heyward Cove
- Huger Cove
- Verdier Cove

Grab Samples:

- Fecal coliform, E. coli bacteria, TN, and TP collected once per month at six (6) sites.

In-Situ Data:

Utilize a handheld YSI ProDSS at all sampling sites. Monitors for:

- Water Temperature (°C)
- Dissolved Oxygen (mg/L)
- pH
- Salinity (ppt)
- Specific Conductivity (mS/cm)
- Turbidity (NTU)



CIP/BRIDGE STREET MONITORING



BRIDGE STREET BMP'S

- A total of fourteen (14) BMP's installed to capture and improve water quality in the initial 1.95 inches of rainfall from impervious surface areas draining to each BMP



PRE-CONSTRUCTION

- Simulated rain event to provide an indication of amount of rainfall needed to produce stormwater discharge to Heyward Cove.



POST-CONSTRUCTION

- Two (2) automatic samplers deployed in the outfalls to Heyward Cove.
- Following 3.82 inches in four (4) hours, discharge occurred at the outfall. No discharge detected during smaller more frequent rain events.
- One (1) sample has been collected. Preliminary results indicate TN, TP, and TSS concentrations decreased significantly.



RAINFALL, HABS, AND TIDAL ELEVATION

Section V. Item #1.



WEATHER STATIONS

- Own, operate, and maintain two (2) weather stations in the May River Watershed.
 - Watershed Office – May River Road
 - Police Department – Progressive Street



HARMFUL ALGAL BLOOMS (HAB)

- New field kit for HAB toxin testing
- Clemson University for species identification



TIDAL ELEVATION

- Calhoun Street Dock
 - Recently established as a long-term tidal elevation site utilizing a HOBO U-20 Water Level Logger
- 4-week Tidal Elevation Study
 - Water Environmental Consultants (WEC) deployed two (2) HOBO U-20 Water Level Loggers at the Rose Dhu Creek and Stone Creek stormwater model boundaries

COMPREHENSIVE DRAINAGE

BETH LEWIS



HEYWARD COVE



SUBWATERSHED DRAINAGE STUDY

Section V. Item #1.

- Heyward Cove is a 464-acre basin
- Purpose was to develop a stormwater infrastructure inventory assessment of the basin, conduct an existing conditions H&H stormwater model for system capacity analysis, and perform a proposed system capacity analysis based on stormwater systems found to be deficient.
- The goal is to provide a master plan of capital improvement projects that will bring stormwater systems' level of service to a standard that meets the Town's stormwater standards.
- Final report has been provided to the Town by its consultant. The H&H model was developed using PCSWMM 2022 Professional 2D software.
- Town staff will be meeting with County staff to discuss pertinent findings from this study.



CROOKED COVE



SUBWATERSHED DRAINAGE STUDY

Section V. Item #1.

- **Grab Samples:**
 - Fecal coliform & E. coli bacteria collected two (2) times per month at one (1) monitoring site
 - Total Nitrogen (TN) & Total Phosphorus (TP) collected once (1) per month at one (1) monitoring site
 - *In-situ* data also collected
- **Flow Monitoring:**
 - Continuous flow utilizing a SonTek IQ-Plus Instrument in drainage channel near Cahill's restaurant
 - Anticipated 6-month data collection period.

CROOKED COVE FLOW MONITORING



- Continuous flow utilizing the SonTek IQ-Plus Instrument in Crooked Cove.

RESILIENCY

BETH LEWIS

RESILIENCE REFERS TO A COMMUNITY'S ABILITY TO WITHSTAND AND RECOVER FROM ENVIRONMENTAL, ECONOMIC, AND SOCIETAL DISRUPTIONS.



TOWN PLANNING

- Blueprint Bluffton, the Town's Comprehensive Plan, adopted in November 2022 includes a new Chapter for Resiliency.
- Proposed Resiliency Items for Town Council's Consideration in the FY25-FY26 Strategic Plan





RESILIENCY



COLLEGE OF CHARLESTON AND SC SEA GRANT CONSORTIUM

Section V. Item #1.

- Included Resiliency Analysis in FY24 Budget
 - Finalizing proposed scope of work with contract execution anticipated prior to March 1.
 - Will include stakeholder engagement.



COMPREHENSIVE DRAINAGE

- Identifying stormwater storage areas
- Stormwater infrastructure needs



SC STATE OFFICE OF RESILIENCY

- Staff attended informational meeting
- Staff is exploring funding opportunities

REVIEW

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- MS4 Program
 - MS4 Plans and Reports
 - Stormwater Management Plan (SWMP)
 - MS4 Annual Reports to SCDHEC
 - Education and Public Participation
 - LSP Strategic Plan
 - Agreement with Beaufort County
 - Illicit Discharge Detection & Elimination (IDDE)
 - IDDE Standard Operating Procedure (SOP)
 - IDDE Enforcement Response Plan (ERP)
 - Sediment & Erosion Control
 - Sediment & Erosion Control SOP
 - Sediment & Erosion Control ERP
 - Post-Construction Control
 - Post-Construction BMP SOP
 - Good Housekeeping
 - Good Housekeeping Manual

- Asset Management
 - Cartegraph Software
- Southern Lowcountry (SoLoCo)
 - Unified Development Ordinance (UDO) – Stormwater Ordinance
 - SoLoCo Design Manual
 - Town Development Review Process and Citizen Self Service Portal
 - Fees, Checklist, Operation & Maintenance Agreements, Annual Post-Construction BMP Inspection Forms, Notice of Termination (NOT) Applications, and As-Built Requirements.

- Water Quality Monitoring
 - MS4 Permit
 - TMDL Monitoring Plan for the Okatie River
 - May River Watershed Action Plan Model Report
 - Staff Field Sampling Guidelines Manual
 - SOP's for field collection and equipment use and maintenance; post-collection procedures; data management
 - Agreements with USCB
 - Studies
 - Currently conducting an Update to the 2004 May River Baseline Assessment
- Engagement
 - WAPAC
 - Two (2) Annual Litter Cleanups – Nine (9) partnerships with businesses, organizations, and non-profits
 - Lowcountry Stormwater Partners (LSP)

- Capital Improvement Projects (CIP)
 - Septic to Sewer Conversion Policy and Program
 - May River Watershed Action Plan Update Project Implementation
 - Comprehensive Drainage
 - Water quality & quantity are components in all Town CIP projects
- Resiliency
 - FY24 Resiliency Analysis

AGREEMENTS WITH BEAUFORT COUNTY

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CURRENT AGREEMENTS

- Stormwater Management and Utility
 - Establishes terms and conditions in a county-wide stormwater utility, operated by the County.
 - Establishes rates, use of revenue, acquisition of existing stormwater infrastructure, construction of new infrastructure, maintenance of infrastructure, operation of infrastructure, regulation & use of infrastructure, and enhancement of water quality.
- Lowcountry Stormwater Partners (LSP) and Carolina Clear
 - County holds contract with Clemson's Carolina Clear.
 - Town and County agreement is to cost-share for these services.
- MS4 Shared Responsibilities
 - Right to Jointly Support Town/County Stormwater Ordinance
 - Right of Entry
 - Notifications and Documentation
 - Joint Monitoring
 - Share water quality monitoring data

PREVIOUS AGREEMENTS

- SoLoCo
 - Identified the need for a consistent stormwater ordinance and design standards to help protect regional water resources and quality of life.
 - Shared costs for private services and materials related to development of the SoLoCo ordinance and design standards.



THANK YOU



TOWN OF BLUFFTON'S WATERSHED MANAGEMENT DIVISION

WAPAC Meeting Presentation
May River Watershed Action Plan Update & Modeling Report
Quarterly Overview and Status
Created: August 25, 2022
Updated: January 25, 2024

Overview

- May River Watershed Action Plan Update & Modeling Report completed November 2020.
- Town Council Adoption of May River Watershed Action Plan Update as a Supporting Document to the Comprehensive Plan completed February 2021.
- May River Watershed Action Plan Update & Modeling Report Summary:
 - **Executive Summary** provides an overview of the project background, findings and interpretation, current state of knowledge concerning fecal coliform fate and transport, and an overview of proposed recommendations for the Town.
 - **1.0 Introduction** includes more detailed project background including the purpose of the document and the Project Team's tasks to 1) develop water quality models to compare current conditions (2018) to pre-shellfish impairment conditions (2002) to develop pollutant load reduction estimates, and 2) evaluate 2011 Action Plan BMPs for appropriateness under current conditions and provide up to eleven (11) alternative projects and preliminary cost estimates.
 - **2.0 Model Setup; 3.0 Model Calibration, and 4.0 Water Quality Model Results** details the methodology used by the Project Team to establish and calibrate the models and the model outputs. This highly technical information is necessary for future Water Quality (WQ) Model calibration and use for consistency.
 - **5.0 Recommendations** includes strategies to improve the Town's monitoring efforts to calibrate the WQ Model further (§5.1), strategies and BMPs for bacteria reduction (§5.2), an evaluation of 2011 Action Plan BMP projects (§5.3), and methodology used to develop 2020 Action Plan Update recommended projects (four septic to sewer conversion projects and eleven stormwater BMP retrofit projects) with cost-estimates and ranking/prioritization (§5.4).
 - **6.0 Conclusions** offers a summary of the WQ Model results in context of current state of knowledge.
 - **7.0 References** documents the prior research findings used to inform recommendations.
 - **Appendices** reference supporting materials:
 - Montie et al. (2019) "Technical Report: Historical Analysis of Water quality, Climate Change Endpoints, and Monitoring in Natural Resources in the May River,"
 - Technical Memo from Dr. Rachel Noble,
 - Watershed Treatment Model Spreadsheets, and
 - Detailed Project Cost Estimate Spreadsheets.

MRWAP 2020 Update Septic to Sewer Project Recommendations/Evaluations:

- Four (4) septic to sewer conversion projects were evaluated in the Rose Dhu Creek and Stoney Creek subwatersheds:
 - Cahill
 - Gascoigne
 - Stoney Creek
 - Pritchardville
 - These projects overlap with 42 subcatchments in the Stoney Creek watershed and 11 in Rose Dhu Creek. Based on WQ Model outputs, these projects alone may potentially reduce FC loading by 3.46×10^{13} FC per year.
- The estimated septic to sewer conversion costs of these projects is \$5.5 million.

Work Performed and Current Status as of August 25, 2022 Meeting

Discussions with the Town, Beaufort County and BJWSA have been held about future Septic to Sewer Program projects identified above. Stoney Creek Septic to Sewer Project has been identified as the next priority project to pursue under the Septic to Sewer Program.

- The Town and Beaufort County are finalizing Funding and Cost share elements relative to the project and a letter to BJWSA will be developed and sent to BJWSA regarding project funding, capital outlay and schedule for implementation.

Update for WAPAC February 23, 2023 Meeting:

The Town, Beaufort County and BJWSA continue to work on details to draft a proposed Inter-Governmental Agreement (IGA) to be presented to each respective approving authority for review, finalization, and approval. It is anticipated that this process is months away from final approval/adoption of the respective parties.

Update for WAPAC July 27, 2023 Meeting:

Stoney Creek/Palmetto Bluff Sewer: Three-party agreement is being finalized by BJWSA legal team now. BJWSA's RFP for water and sewer design services was supposed to close 6/30/23. Due to RIA protocol, they must review and approve an RFP prior to posting, thus the RFP was canceled. BJWSA anticipates receiving RIA approval and reposting the RFP on 7/17/23. BJWSA received RIA approval and reposted the RFP on 7/17/23 with a closing of 8/1/23.

Update for WAPAC January 25, 2024 Meeting:

Stoney Creek/Palmetto Bluff Sewer: All parties agreed to the IGA in October. The IGA will be presented to TC at the November TC meeting for review and approval. Beaufort County will present the IGA at their December meeting.

MRWAP Update Eleven Impervious Restoration (stormwater retrofit) Project Recommendations/Evaluations:

- Eleven (11) project sites (incorporating various individual BMPs) were selected in consultation with the Town (prioritizing subcatchments with FC bacteria hotspot and/or large impervious areas). These sites were evaluated in terms of the potential benefits gained by retrofitting to meet the 95th percentile storm retention, to the maximum extent possible, under the proposed Impervious Area Restoration/Stormwater Retrofit Program.

Eleven (11) proposed project sites Rose Dhu Creek (6 projects) and Stoney Creek (5 projects):

- Bluffton Early Learning Center (BELC)
- Boys and Girls Club of Bluffton (BGC)
- Benton House (BH)
- Bluffton High School (BHS)
- Buckwalter Recreation Center (BRC)
- Lowcountry Community Church (LCC)
- McCracken Middle School/Bluffton Elementary School (MMSBES)
- May River High School
- One Hampton Lake Apartments (OHLA)
- Pritchardville Elementary School (PES)
- Palmetto Pointe Townes (PPT)
- Based on WQ Model outputs, these projects alone may potentially reduce FC loading by
 - 2.99×10^{14} FC reduction for the Full SWRv (entire sub-basin drainage area catchment).
 - 2.53×10^{14} FC reduction for the Reduced SWRv projects (impervious area drainage area of sub-basin catchment).
- The estimated of Full SWRv projects costs is \$32.7 million and the estimated cost of Reduced SWRv projects is \$22.6 million.
- Currently the Towns' Impervious Restoration Program is targeting Reduced SWRv for future projects.

Example of Impervious Restoration Project evaluation from May River Watershed Action Plan Update & Modeling Report:

May River Watershed Action Plan Update
 Updated: January 25, 2024
 Next Update: April 25, 2024

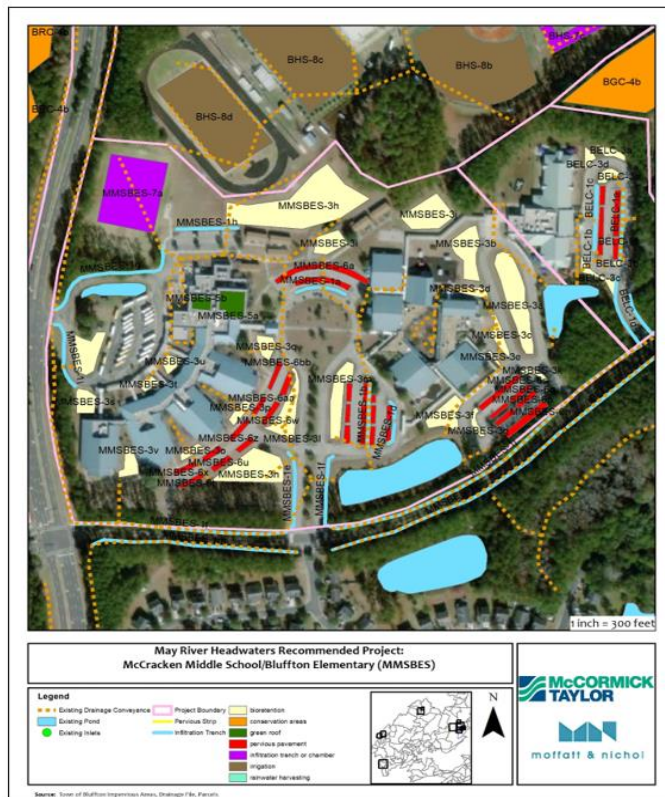


Figure 52. McCracken Middle School/Bluffton Elementary School Proposed Stormwater BMP Retrofits

**Work Performed and Current Status as of August 25, 2022 Meeting
 Update for WAPAC July 27, 2023 Meeting:**

Work performed for this project is being performed by MSA Consultant Engineering Firm:

- Drafted a detailed scope of work for Engineering Consultant Firm review and cost proposal (Expression of Interest) regarding performance of the work elements presented herein and related to MRWAP Update recommendations for implementation.
- The Expression of Interest was submitted to 3 consultant firms under existing Master Service Agreements with the Town for review and a request for response.
- All 3 Firms responded. Their respective responses were evaluated, scored and discussed internally.
- A recommendation for Award was made and the Consulting Firm of Goodwyn, Mills and Cawood selected.
 - Phase I of this work performed under existing FY 22 funding from Watershed Management Division.
 - Phase II of this work be presented for Town Council review and approval in the August 2022 Town Council Meeting and FY23 funding.

Update for WAPAC February 23, 2023 Meeting:

Phase II work was approved by Town Council and work has been initiated and reported herein.

Task 1 : MRWAP Update 11 site locations

Update for WAPAC January 25, 2024 Meeting

Eleven (11) proposed project sites Rose Dhu Creek (6 projects) and Stoney Creek (5 projects):
 Yellow and Blue highlight indicates geotechnical evaluations complete.

- Bluffton Early Learning Center (BELC). Participating in preliminary design development phase.
- Boys and Girls Club of Bluffton (BGC). Participating in preliminary design development phase.
- Benton House (BH). Participating in preliminary design development phase.
- Bluffton High School (BHS). Participating in preliminary design development phase.
- Buckwalter Recreation Center (BRC). Participating in preliminary design development phase.
- Lowcountry Community Church (LCC). Declined to Participate.
- McCracken Middle School/Bluffton Elementary School (MMSBES). Participating in preliminary design development phase.
- May River High School. Participating in preliminary design development phase.
- One Hampton Lake Apartments (OHLA). Declined to Participate.
- Pritchardville Elementary School (PES). Participating in preliminary design development phase.
- Palmetto Pointe Townes (PPT). Declined to Participate.
- Evaluate 11 sites and proposed BMPs. Complete.

- Update concept plans for 11 sites based on site evaluations, recommendations and discussions. **Complete.**
- Perform geotechnical evaluations at each site at locations related to BMP locations of updated concept plans. Completed for **the 5 school sites**. Geotechnical evaluations for the remaining **3** participating partner sites are being schedule based on recent property owner participation status being known/confirmed.
Coordinating geotechnical work approval with property owners and schedule for Benton House (BH), Buckwalter Recreation Center (BRC) and Boys and Girls Club of Bluffton (BGC). **Geotechnical field work for Benton House (BH), Buckwalter Recreation Center (BRC) and Boys and Girls Club of Bluffton (BGC) completed, and data being analyzed and geotechnical report in development.**
- Refine updated concepts and use for presentations to Property Owner to discuss Impervious Restoration Program goals, objectives and gain support for Program and their participation. Based on geotechnical investigation results, updated Concept plans for the 5 school sites have been refined. A meeting will be scheduled with School District to discuss the updated concept plans to get their feedback prior to beginning Preliminary Design task. **Based on geotechnical investigation results, updated Concept plans for Benton House (BH), Buckwalter Recreation Center (BRC) and Boys and Girls Club of Bluffton (BGC) sites will be refined. A meeting will be scheduled with School District to discuss the updated concept plans to get their feedback prior to beginning Preliminary Design task.**
 - Develop list of “incentives” to secure Property Owner participation (see Policy Document Formulation below).
- Based on geotechnical information and Property Owner feedback further refine concept plans to Preliminary Design:
 - Determine BMP types and location to maximize SWRv/WQ treatment in cost effective approach. Estimated impervious area treated and SWRv capture based on refined Concept plans developed for the 5 school sites.
 - Determine estimated pollutant load reductions.
 - Develop site specific BMP details.
 - Develop preliminary BMP maintenance schedule and cost for each site.
- Preliminary Design development plans will be presented to the Property Owner for review and discussion. Other Restoration Program details (maintenance responsibilities, easements, incentives, etc.) developed as part of the Program (see Policy Document Formulation below) will also be discussed in hopes of establishing a commitment from the Property Owner to participate in the Program. Once a “commitment” is secured from the Property Owner, the project site will be moved to Final design, permitting, and ultimately construction. **A meeting was held with the School District on September 28, 2023 to discuss initial Preliminary Design development. Comments were noted and to be incorporated for final preliminary design plan development.**

Task 2 : Identify 15 new project sites for Town of Bluffton Impervious Restoration/BMP Retrofit Projects.

- The Town wishes to identify an additional 15 project sites located within the municipal limits of Bluffton for the Impervious Restoration/BMP Retrofit Program. However, the criteria for site selection will be considered to be more “low hanging fruit” based on the following:
 - Within Town of Bluffton Municipal limits.
 - Soils – sandy soils with high infiltration rates offer the biggest bang for the buck for water quality treatment/improvement. Utilizing soil survey and other information target sites where infiltration can be maximized on-site.
 - Public or governmental agency land/property owner (not SCDOT RoW).

Update for WAPAC February 23, 2023 Meeting:

Desktop analysis and field work performed to develop a list of 45 sites that potentially meet the criteria above. This list of potential sites is under review/evaluation.

Update for WAPAC July 27, 2023 Meeting:

Finalized the list of 15 additional sites (and 5 alternates) to be considered/evaluated within the municipal limits of Bluffton for Impervious Restoration feasibility and concept plan development. Site evaluations will be performed as property owner approvals for access to property to perform site assessment is obtained.

Update for WAPAC January 25, 2024 Meeting:

Data search for these sites is ongoing in terms of existing plan information, current property owner and contacts.

Yellow Highlight indicate field investigations, drainage pattern evaluations and hand auger soil samples completed.

Green Highlight indicate contact made and coordination in process.

Initial concept plans are being developed for these sites for review. Other site evaluations will be performed as property owner approvals for access to property to perform site assessment is obtained.

- **Dominion Energy Engineering Office**
- Rose Dhu Equestrian Center
- St. Gregory Catholic Church/School
- **River Ridge Academy**
- **MC Riley Early Childhood Center**
- **MC Riley Elementary School**
- **MC Riley Sports Complex**
- **Bluffton Middle School**
- **Red Cedar Elementary School**
- Seagrass Station Road
- **Bluffton Pkwy West (170 to Buckwalter)**
- **Buckwalter Pkwy (Hampton Hall to May River Road)**
- Persimmon St/Sheridan Park Cir/Pennington Dr
- Vaden Nissan Hilton Head
- NHC Healthcare/Bluffton (Healthcare, Rehab, Assisted Living)

Town of Bluffton Impervious Restoration/BMP Retrofit Policy Documents.

Task 3 : Section 5.4.4. Stormwater BMP Retrofit Projects of the May River Watershed Action Plan Update and Model Report identifies potential Impervious Restoration/BMP Retrofit projects located on Public and Private Land. As mentioned earlier, one of the primary site selection criteria, at time of report development, was to identify sites with large impervious areas so that pollutant load reductions could be estimated and the benefits of such projects on stormwater quality quantified/estimated, if implemented into construction. Generally, Public Funds are not expended to improve private property nor is Town of Bluffton funding generally expended on Public Land owned by another government entity. In order for such projects identified in Section 5.4.4. to move forward in the interest of improved water quality and for the overall benefit and welfare of the constituents of the Town of Bluffton, Policy Documents need to be formulated that establishes the parameters of such a Program to be initiated and implemented.

- Policy Document Formulation has been initiated and includes research of similar Programs Nationwide.

Update for WAPAC February 23, 2023 Meeting:

2 *DRAFT* Policy Documents have been submitted for review and comment.

Comments are being evaluated and addressed by consultant and an update *DRAFT* Policy Document is expected by April 2023.

Update for WAPAC July 27, 2023 Meeting:

- Updated Draft Policy Document was completed and submitted in June for review and comments are being finalized.
- Upon Policy Document Final Draft development, the Policy Document will be presented to WAPAC with a request for recommendation to Town Council for adoption.

Update for WAPAC January 25, 2024 Meeting:

- **Internal review, discussion and comments of Updated Draft Policy Document was completed and submitted to Consultant September 10, 2023. Initial discussion of comments and path forward held November 3, 2023. Additional discussions with Consultant to be held in December 2023.**

Other, Related MRWAP Update Recommendations

- Adopt proposed regional Southern Lowcountry Post Construction Stormwater Ordinance and Design Manual - complete September 2021.
- The Town should incorporate volume reduction BMPs (those that encourage infiltration) within existing and future CIP projects to the maximum extent practical, especially for project locations with well-drained soils (HSG A or B) – [in progress](#), see below.
 - Work Performed and Current Status as of August 25, 2022 Meeting
 - Bridge Street Streetscape Project
 - Project design/permitting is complete, and Construction Contract has been awarded.

May River Watershed Action Plan Update

Updated: January 25, 2024

Next Update: April 25, 2024

- Incorporated Infiltration BMPs within the project to capture and treat 1.95” of rainfall over impervious surfaces within the project area, prior to discharge into the May River.
- Received Section 319 Grant from DHEC to cost-share cost of construction of proposed BMPs.

Update for WAPAC February 23, 2023 Meeting

Construction was initiated by JS Construction in early December 2022. Construction considered 65% complete.

Update for WAPAC July 27, 2023 Meeting:

- Project work is Substantially Complete.
- Partial reimbursement from DHEC for construction cost supported by 319 Grant requested and received.

Update for WAPAC January 25, 2024 Meeting

- Project and Grant work is complete and closed out.
- Total Grant funding for this project \$228,165.15
- Water Quality Monitoring Results

Water Quality Monitoring Summary: Based on monitoring and rainfall data for the period of July 1-October 11, 2023, the only rainfall event that produced a stormwater outfall/discharge was an intense rain event on September 10, 2023 which produced 3.82” of rain in a 4 hour period. The next most intense storm happened on July 10, 2023 which produced 1.46” of rain in 1 hour and no stormwater outfall/discharge occurred. Based on this data, we estimate the BMP treatment train constructed with this project could accommodate a 10 year storm event (6.9” of rain in 24 hours) with little or zero runoff. Zero runoff equals zero pollutants, and zero freshwater being discharged to Huger Cove and the May River.

From 319 Grant Project Final Report: Pre-construction water quality monitoring was performed on October 19, 2022, which can be found in Appendix C. So, prior to project construction a simulated rain event was performed to provide an indication of the amount of rainfall prior to direct a discharge occurring into Heyward Cove and then water samples were collected and tested by USCB to determine pollutants present and their concentrations. The rainfall simulation was performed because there was no way to get a water sample once stormwater entered the BMP and was treated by BMP via infiltration into ground.

Table 1 below is the Pre Construction Water Quality Monitoring Table of Pollutants:

Date	Time of Sample	TKN (mg/L)	Nitrate/Nitrite (mg/L)	Total Nitrogen (TN)	Total Phosphorus (TP)	TSS (mg/L)
10/19/2022	9:41	0.85	0.290	1.10	0.68	220.00

Three underground storage/infiltration and four pervious paver parking areas with underground storage were installed. After the completion of the BMPs, water quality monitoring was conducted to determine the reduction in pollutants with the newly installed BMPs. The installation of the Auto samplers were located at the two stormwater pipe outfalls into Heyward Cove, FES-1 and FES-2. Post-

construction water quality monitoring occurred on September 11, 2023, which can be found in Appendix C. Based off the post-construction pollutant values, all values analyzed were reduced greatly, including TSS.

Table 2 below is the Post Construction Water Quality Monitoring Table of Reduced Pollutants:

Date	Time of Sample	TKN (mg/L)	Nitrate/Nitrite (mg/L)	Total Nitrogen (TN)	Total Phosphorus (TP)	TSS (mg/L)
9/11/2023	16:46	0.64	0.14	0.78	0.19	8.4

Rainfall monitoring took place between July 1, 2023, and October 11, 2023, at the Watershed Building Office, 1261 May River Road. There were eight rainstorm events that had over an inch of water in 24 hours. In particular, there was one rainstorm on September 10th, 2023, where there was 3.82 inches of rain over the extent of four hours. This was the only recorded rain event, during the monitoring period, which produced a discharge of stormwater runoff into outfall FES-2 at Heyward Cove.

Table 3 below are the eight storm events over an inch.

Rainstorms over and inch	
Rainstorm Event	Rainfall (in)
July 5 th	1.46 inches over 1 hour
July 10 th	1.17 inches over 7 hours
July 28 th	1.28 inches over the whole day
August 28 th	1.23 inches over 1 hour
August 30 th	1.23 inches over the whole day
September 1 st	1.1 inches over 3 hours
September 10 th	3.82 inches over 4 hours
September 17 th	1.09 inches over 6.5 hours

Table 4 shows the monthly rain mounts in inches, with October only accounting for the first eleven days of the month and then monitoring stopped.

Monthly Rain Amounts	
Month	Rainfall (in)
July	7.35
August	5.3
September	7.56
October*	0.0
TOTAL	20.21

*only accounted for October 1 – October 11, 2023

There are many benefits that come from the constructed/installed stormwater best management practices, that include: 1) reducing the concentrations of pollutants that are associated with stormwater runoff, 2) the amount and frequency of direct stormwater/freshwater discharges into Heyward Cove has greatly reduced. and 3) temporarily detain large portions of the runoff volume and then release it a slower rate to decrease the amount of flooding on the roads. With the BMPs that were used for Bridge Street Streetscape, the BMP benefits include the decrease in TSS and other pollutants, but also retrofitting the existing area that had no prior stormwater management in the surrounding area.

- Pritchard Street Drainage Improvement Project

 - Project in Design Phase and considered 30% complete.
 - Incorporated Infiltration BMPs within the project to capture and treat 1.95” of rainfall over impervious surfaces within the project area, prior to discharge into Heyward Cove.
 - Submitted Section 319 Grant proposal to DHEC to cost-share cost of construction of proposed BMPs. Pre-proposal was accepted, and Full Proposal was requested by DHEC. Under Review.
 - Update for WAPAC February 23, 2023 Meeting**

 - 70% design plan submitted, reviewed and comments presented to consultant.
 - 319 Grant was awarded by DHEC to the Town.
 - Update for WAPAC July 27, 2023 Meeting:**

 - Project Scope of Work and budget increase approved for FY24 to include streetscape elements of lighting, sidewalk, traffic calming and ADA compliance.
 - Updated survey received.
 - Updated 70% design drawings received in July and under review.
 - Update for WAPAC January 25, 2024 Meeting**

 - Updated 70% Streetscape Design submittal made and review comments provided to Consultant for 90% Design development and permit acquisitions.
 - Pre-Application meeting for Project held with Growth Management and Stormwater Management.
- In-House Microbial Source Tracking – [in progress](#), see below
 - The Town entered a Memorandum of Understanding (MOU) with the University of South Carolina Beaufort (USCB) in July 2021 to establish and fund a regional Microbial Source Tracking (MST) laboratory capable of accepting environmental water quality samples.
 - Analytical services are provided by the USCB-MST laboratory for all environmental samples collected by the Town.

May River Watershed Action Plan Update

Updated: January 25, 2024

Next Update: April 25, 2024

- **Update for WAPAC February 23, 2023 Meeting** Staff has collected additional fecal samples needed for dog, bird, and deer. The USCB-MST Laboratory is conducting the assessment on additional fecal samples and Dr. Pettay will provide a final report to the Town once all fecal markers in regional watersheds have been analyzed.
- **Update for WAPAC July 27, 2023 Meeting:** Additional genetic fecal markers continue to be analyzed by Dr. Pettay and the MST Laboratory.
- **Update for WAPAC January 25, 2024 Meeting: Dr. Pettay is now the Lead Principal Investigator (PI) for both the MST and Water Quality Laboratories. Dr. Pettay, Town staff, and County staff met to discuss regional water quality monitoring needs. The MST Laboratory is still processing scat samples, and a final report is forthcoming.**
- Future (new) Bacteria Monitoring Locations - *in progress*, see below
 - Staff increased sampling frequency and implemented additional monitoring sites and parameters in the May River headwaters based upon recommendations in the 2020 May River Watershed Action Plan Update and Model Report.
 - **Update for WAPAC February 23, 2023 Meeting** Staff is collecting intermittent flow data at SonTek IQ sites in conjunction with grab FIB samples.
 - **Update for WAPAC July 27, 2023 Meeting** Staff is working with the consultant to identify recommended strategies for intermittent flow data collection and a review of the Town's FIB grab sample schedule.
 - **Update for WAPAC January 25, Meeting: Staff continues to collect MRWAP bacteria grab samples twice per month at fourteen (14) monitoring locations in the May River headwaters study area. Intermittent flow measurements are collected at six (6) of these monitoring locations at the time of grab sampling.**
- Future (new) Water Flow Monitoring Locations.
 - **Work Performed and Current Status as of August 25, 2022 Meeting**
 - The MRWAP Update included recommendations for the Town to perform certain rainfall and flow data measurements in May River Headwater Watersheds in order to "calibrate" and make more accurate Model predictions. These recommendations were evaluated and a game plan to address recommendations to calibrate model developed.
 - Utilizing existing flow and rainfall data collected over past years with rain gauges, IQ Plus and Sontek measuring instruments in Stoney Creek, Rose Dhu Creek, Palmetto Bluff, Duck Pond and Heyward Cove, the Town hired a consultant to review the data and determine:
 - Useful data obtained to gain the required information to calibrate model.
 - The data obtained from Stoney Creek and Heyward Cove was deemed sufficient for Model calibration and Final report for this work is in process.
 - Duck Pond was deemed inconsequential, not needed due to drainage area size and proximity/outfall to tidal waters.

Update for WAPAC February 23, 2023 Meeting

May River Watershed Action Plan Update

Updated: January 25, 2024

Next Update: April 25, 2024

- Consultant Final Report delivered, and Model Calibration Data for Stoney Creek and Heyward Cove identified.
- If data review resulted in insufficient data, develop a monitoring program that would produce the data needed.
 - Rose Dhu Creek and Palmetto Bluff flow data review resulted in data that was insufficient to calibrate Model.
 - Final report identifying recommended strategies to gain required data is in process.
 - Potential purchase of telemetry stations to equip continuous flow monitoring stations with real-time data access.

Update for WAPAC February 23, 2023 Meeting

- Final Report delivered. Based on recommendations of data and process needed, staff has procured needed telemetry station equipment and has hired a consultant to assist in getting the intermittent and continuous flow data and producing a Final Report. The field work installation of equipment is being scheduled. Once installed and operational, data collection will last 6 months.

Update for WAPAC July 27, 2023 Meeting

- The Town of Bluffton procured and installed two (2) SonTek Turnkey Systems that enable real-time continuous flow data review to a cloud-based service. These systems are deployed in the Rose Dhu Creek and Palmetto Bluff subwatersheds.
- A SonTek IQ remains deployed in the Stoney Creek subwatershed. The consultant's first data review determined there was sufficient flow data for model calibration in the Stoney Creek subwatershed. However, staff determined it would continue to collect continuous flow data at this location so that continuous flow, intermittent flow, bacteria samples, and rainfall data were collected for three (3) of the four (4) Modeling Report subwatersheds simultaneously.
- Consultant is reviewing data and identifying power, beam, or possible maintenance issues weekly.
- Intermittent flow measurements, utilizing the FlowTracker2, will be conducted at the time of grab sampling at the three (3) SonTek IQ flow stations beginning 7/31/23.

May River Watershed Action Plan Update

Updated: January 25, 2024

Next Update: April 25, 2024

Update for WAPAC January 25, 2024 Meeting:

- Staff continue to operate and maintain three (3) SonTek IQ continuous flow monitoring stations in the May River headwaters. Staff expect these systems to be in place for approximately one (1) full year to account for seasonality.
- The Duck Pond subwatershed has no channelized flow entering or exiting the system. The Town's consultant suggested that the Town monitor water elevation in the Duck Pond for approximately 6 months to ensure water elevations are accurately depicted by future modeling. Staff has requested permission to site a water elevation logger in the Duck Pond, near or attached to the Palmetto Bluff bridge.
- Clarification from the consultant determined that due to limited staff time, intermittent flow measurements would be most valuable at six (6) of the Town's water quality monitoring locations upstream of the SonTek IQ flow stations.
- Staff is working diligently to collect samples following wet weather conditions which have been defined as ≤ 0.50 inches of rainfall within 24 hours of sampling. The USCB Water Quality Laboratory has been assisting the Town with ensuring samples can be analyzed on short notice.

May River Action Plan 2020 Update

Status Report and Update

**Presentation to May River Watershed Action Plan
Committee**

January 25, 2024

Department of Projects & Watershed Resilience

Dan Rybak, Project Manager

Septic to Sewer Projects



- Four (4) septic to sewer conversion projects were evaluated in the Rose Dhu Creek and Stoney Creek subwatersheds:
 - Cahill
 - Gascoigne
 - Stoney Creek
 - Pritchardville
 - These projects overlap with 42 subcatchments in the Stoney Creek watershed and 11 in Rose Dhu Creek. Based on WQ Model outputs, these projects alone may potentially reduce FC loading by 3.46×10^{13} FC per year.
- The estimated septic to sewer conversion costs of these projects is \$5.5 million.

Work Performed and Current Status

Discussions with the Town, Beaufort County and BJWSA have been held about future Septic to Sewer Program projects identified above. **Stoney Creek Septic to Sewer Project** has been identified as the next priority project to pursue under the Septic to Sewer Program.

Stoney Creek/Palmetto Bluff Sewer: All parties agreed to the IGA in October. The IGA was presented to TC and approved. Beaufort County will present the IGA at their December meeting.

Impervious Restoration Program Projects



Within the MRWAP 2020 Update, eleven (11) project sites (incorporating various individual BMPs) were selected in consultation with the Town (prioritizing subcatchments with FC bacteria hotspot and/or large impervious areas). These sites were evaluated in terms of the potential benefits gained by retrofitting to meet the 95th percentile storm retention, to the maximum extent possible, under the proposed Impervious Area Restoration/Stormwater Retrofit Program.

Proposed project sites Rose Dhu Creek (6 projects) and Stoney Creek (5 projects):

Yellow highlight indicates geotechnical evaluations complete previously.

Blue highlight indicated geotechnical investigation complete this reporting period

- **Bluffton Early Learning Center (BELC)**. Participating in preliminary design development phase.
- **Boys and Girls Club of Bluffton (BGC)**. Participating in preliminary design development phase.
- **Benton House (BH)**. Participating in preliminary design development phase.
- **Bluffton High School (BHS)**. Participating in preliminary design development phase.
- **Buckwalter Recreation Center (BRC)**. Participating in preliminary design development phase.
- ~~Lowcountry Community Church (LCC)~~. **Declined to Participate.**
- **McCracken Middle School/Bluffton Elementary School (MMSBES)**. Participating in preliminary design development phase.
- **May River High School**. Participating in preliminary design development phase.
- ~~One Hampton Lake Apartments (OHLA)~~. **Declined to Participate**
- **Pritchardville Elementary School (PES)**. Participating in preliminary design development phase.
- ~~Palmetto Pointe Townes (PPT)~~. **Declined to Participate.**

Impervious Restoration Program Projects



Task 1 : MRWAP Update 11 site locations

- Evaluate 11 sites and proposed BMPs. **Complete**
- Update concept plans for 11 sites based on site evaluations, recommendations and discussions. **Complete for school sites.**
These plans were used to determine locations for Geotech boring locations.
Perform geotechnical evaluations at each site at locations related to BMP locations of updated concept plans. **Complete.**
Geotechnical field work for Benton House (BH), Buckwalter Recreation Center (BRC) and Boys and Girls Club of Bluffton (BGC) completed, and data being analyzed and geotechnical report in development.
- Refine updated concepts and use for presentations to Property Owner to discuss Impervious Restoration Program goals, objectives and gain support for Program and their participation. **Based on geotechnical investigation results, updated Concept plans for Benton House (BH), Buckwalter Recreation Center (BRC) and Boys and Girls Club of Bluffton (BGC) sites will be refined. A meeting will be scheduled with School District to discuss the updated concept plans to get their feedback prior to beginning Preliminary Design task.** Based on geotechnical information and Property Owner feedback further refine concept plans to Preliminary Design.
- Preliminary Design development plans will be presented to the Property Owner for review and discussion. **A meeting was held with School District on September 28, 2023 to discuss initial Preliminary Design development. Comments were noted and to be incorporated for final preliminary design plan development.**

Impervious Restoration Program Projects



Task 2 : Identify 15 new project sites for Town of Bluffton Impervious Restoration/BMP Retrofit Projects.

Data search for these sites is ongoing in terms of existing plan information, current property owner and contacts.

Yellow Highlight indicate field investigations, drainage pattern evaluations and hand auger soil samples completed.

Green Highlight indicate contact made and coordination in process.

Initial concept plans are being developed for these sites for review. Other site evaluations will be performed as property owner approvals for access to property to perform site assessment is obtained.

- Dominion Energy Engineering Office
- Rose Dhu Equestrian Center
- St. Gregory Catholic Church/School
- River Ridge Academy
- MC Riley Early Childhood Center
- MC Riley Elementary School
- MC Riley Sports Complex
- Bluffton Middle School
- Red Cedar Elementary School
- Seagrass Station Road
- Bluffton Pkwy West (170 to Buckwalter)
- Buckwalter Pkwy (Hampton Hall to May River Road)
- Persimmon St/Sheridan Park Cir/Pennington Dr
- Vaden Nissan Hilton Head
- NHC Healthcare/Bluffton (Healthcare, Rehab, Assisted Living)

Impervious Restoration Program Projects



Task 3 : Generally, Public Funds are not expended to improve private property nor is Town of Bluffton funding generally expended on Public Land owned by another government entity. In order for such projects identified in Section 5.4.4. to move forward in the interest of improved water quality and for the overall benefit and welfare of the constituents of the Town of Bluffton, Policy Documents need to be formulated that establishes the parameters of such a Program to be initiated and implemented.

Update:

- Internal review, discussion and comments of Updated Draft Policy Document was completed and submitted to Consultant September 10, 2023. Initial discussion of comments and path forward held November 3, 2023 with Consultant. Additional discussions with Consultant to be held.

CIP Impervious Restoration Program Projects

Section VII. Item #1.



- **Bridge Street Streetscape Project** – Construction Complete.
- Post-construction water quality monitoring Continues.
- 319 Water Quality Grant Total Funding = **\$228,165.15**



CIP Impervious Restoration Program Projects

Section VII. Item #1.



- Bridge St Water Quality Monitoring Update

Water Quality Monitoring Summary: Based on monitoring and rainfall data for the period of July 1-October 11, 2023, the only rainfall event that produced a stormwater outfall/discharge was an intense rain event on September 10, 2023 which produced 3.82” of rain in a 4 hour period. The next most intense storm happened on July 10, 2023 which produced 1.46” of rain in 1 hour and no stormwater outfall/discharge occurred. Based on this data, we estimate the BMP treatment train constructed with this project could accommodate a 10 year storm event (6.9” of rain in 24 hours) with little or zero runoff. Zero runoff equals zero pollutants, and zero freshwater being discharged to Huger Cove and the May River.

RAINSTORMS OVER AND INCH

Rainstorm Event	Rainfall (in)
July 5th	1.46 inches over 1 hour
July 10th	1.17 inches over 7 hours
July 28 th	1.28 inches over the whole day
August 28 th	1.23 inches over 1 hour
August 30 th	1.23 inches over the whole day
September 1 st	1.1 inches over 3 hours
September 10 th	3.82 inches over 4 hours
September 17 th	1.09 inches over 6.5 hours

CIP Impervious Restoration Program Projects



Monthly Rain Amounts

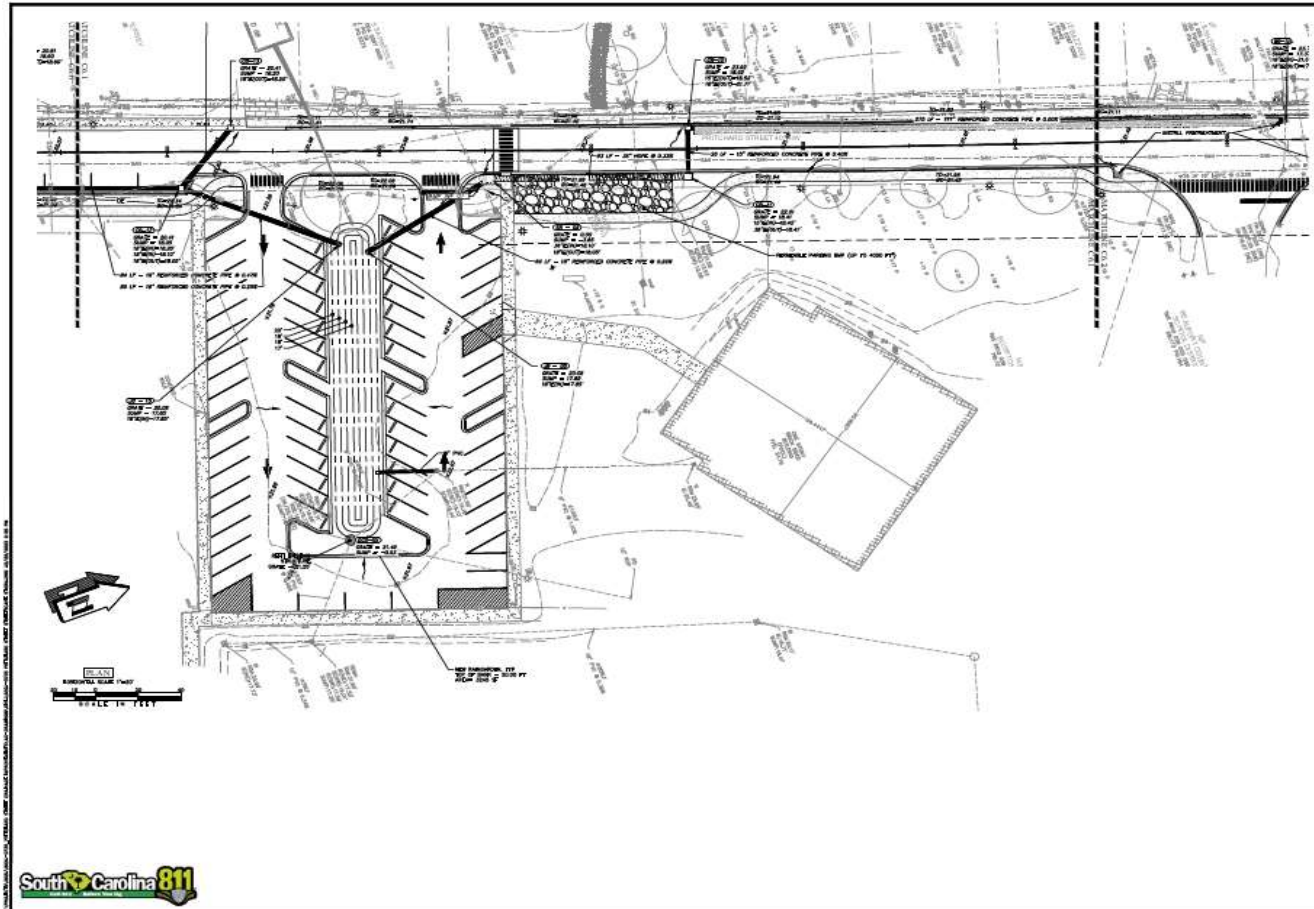
Month	Rainfall (in)
July	7.35
August	5.3
September	7.56
October*	0.0
TOTAL	20.21

Impervious Restoration Program Projects

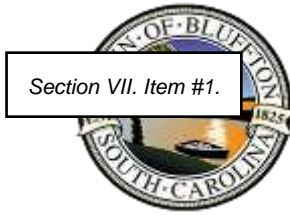
Section VII. Item #1.



- **Pritchard Street Drainage Improvement and Streetscape Project**
- Pre-Application meeting for Project held with Growth Management and Stormwater Management
- 90% design Submittal December 27, 2023. Under Review
- 319 Water Quality Grant Total Funding = **\$124,577.00**



Impervious Restoration Program Projects



In-House Microbial Source Tracking

- Dr. Pettay is now the Lead Principal Investigator (PI) for both the MST and Water Quality Laboratories. Dr. Pettay, Town staff, and County staff met to discuss regional water quality monitoring needs. The MST Laboratory is still processing scat samples, and a final report is forthcoming.

Future (new) water Flow Monitoring Locations

- Staff continues to collect MRWAP bacteria grab samples twice per month at fourteen (14) monitoring locations in the May River headwaters study area. Intermittent flow measurements are collected at six (6) of these monitoring locations at the time of grab sampling.

Impervious Restoration Program Projects

Section VII. Item #1.



Future (new) Water Flow Monitoring Locations

- Staff continue to operate and maintain three (3) SonTek IQ continuous flow monitoring stations in the May River headwaters. Staff expect these systems to be in place for approximately one (1) full year to account for seasonality.
- The Duck Pond subwatershed has no channelized flow entering or exiting the system. The Town's consultant suggested that the Town monitor water elevation in the Duck Pond for approximately 6 months to ensure water elevations are accurately depicted by future modeling. Staff has requested permission to site a water elevation logger in the Duck Pond, near or attached to the Palmetto Bluff bridge.
- Clarification from the consultant determined that due to limited staff time, intermittent flow measurements would be most valuable at six (6) of the Town's water quality monitoring locations upstream of the SonTek IQ flow stations.
- Staff is working diligently to collect samples following wet weather conditions which have been defined as ≤ 0.50 inches of rainfall within 24 hours of sampling. The USCB Water Quality Laboratory



QUESTIONS & DISCUSSION

May River Project: Assessing Change After 20 Years

Progress Report to Town of Bluffton

Q1: 7/21/2023 to 10/21/2023

Prepared by: Pamela Marcum, Joe Cowan, Gary Sundin, Andrew Tweel

Headwater Tidal Creek Studies

Six tidal creeks were sampled in the May River estuary in July 2023. Within each creek, one site was sampled for water quality and six sites were sampled for benthic composition and community. One of the six benthic sites was also sampled for sediment chemistry and contamination.

Objective 1: Water quality

Water quality loggers were deployed at all six water quality sites for 25 hours collecting 15-min interval water quality data near-bottom for a total of 100 data points collected per site. Two water samples were collected from each site (12 total) for nutrient analysis. Two water samples were collected from each site (12 total) for Chlorophyll-*a* and bacteria analysis.

Water logger data has been downloaded and quality checked. 12 water samples were sent to Chesapeake Bay Laboratory for nutrient analysis, sample processing is in progress and SCDNR is awaiting results. SCDNR processed 12 samples each for *Enterococcus* and fecal coliform bacteria and Chlorophyll-*a* concentrations.

Data entry and quality checking is in progress.

Objective 2: Sediment Quality

40 sediment samples were collected for grain-size composition (seven from each creek except at Brighton Beach where only five samples were collected due to hazardous conditions in the upper portion of the creek). Six sediment samples each (one per creek) were collected for chemistry, Microtox, and pore water.

Six porewater samples were processed by SCDNR. 12 chemistry and 12 Microtox samples were sent to a NOAA laboratory for analysis, processing is in progress and SCDNR is awaiting results. Sediment composition samples are awaiting processing by SCDNR.

Data entry and quality checking is in progress.

Objective 3: Biological Communities

34 benthic grab samples were collected from each creek (six from each creek except at Brighton Beach where only five samples were collected due to hazardous conditions in the upper portion of the creek).

Sample processing is in progress by SCDNR.

Data entry and checking is in progress.

Tidal Creek and Open Water Studies

Ten sites were sampled in the May River estuary in July 2023, six sites in the mainstem and four sites in adjoining tidal creeks.

Objective 1: Water quality

At all 10 stations, 30 instantaneous water quality measurements were collected; one each at three depths: near-surface, mid-water column, and near-bottom. Water quality loggers were deployed at all 10 sites for 25 hours collecting 15-min interval water quality data near-bottom for a total of 100 data points collected per site. Two water samples were collected from each site (20 total) for nutrient analysis. Two water samples were collected from each site (20 total) for bacteria analysis. Two water samples were collected from each site (20 total) for Chlorophyll-*a* analysis. Secchi disk measurements were taken at nine sampling sites, one open water site was missed.

Water logger data has been downloaded and quality checked. 20 water samples were sent to Chesapeake Bay Laboratory for nutrient analysis, sample processing is in progress and SCDNR is awaiting results. SCDNR processed 20 samples each for *Enterococcus* and fecal coliform bacteria and Chlorophyll-*a* concentrations.

Data entry and quality checking is in progress.

Objective 2: Sediment Quality

10 sediment samples each were collected for grain-size composition, chemistry, Microtox, Total Organic Carbon (TOC), microplastics, and contaminants. 20 sediment samples were collected for porewater analysis.

20 porewater samples were processed by SCDNR. Chemistry, Microtox, TOC, and contaminant samples were sent to a NOAA laboratory for analysis, processing is in progress and SCDNR is awaiting results. Sediment composition samples are awaiting processing by SCDNR.

Data entry and quality checking is in progress.

Objective 3: Biological Communities

Two trawl tows were completed at each site for a total of 20 samples. Catch was identified to lowest practical taxonomic level, enumerated, and up to 30 specimens were measured.

Two benthic grab samples were collected from each site for a total of 20 samples. Sample processing is in progress by SCDNR.

Data entry and checking is in progress.

Oyster Studies

Habitat trays:

The Shellfish Research Section (SRS) placed habitat trays, each containing approximately two gallons of clean, loose oyster shell were placed at six locations in the May River watershed on April 17, 2023 (Figure 1). Two sites were chosen in each of the upper, mid, and lower watershed areas, based upon previous efforts. At each location, three trays were placed, for a total of 18 deployed.

Demographic samples:

The SRS collected demographic samples on August 14 – 15, 2023 at locations near the habitat trays (Figure 1). At each sample location triplicate quadrat samples were collected using a 0.0625 m2 quadrat. Samples were returned to the SCDNR laboratory, and all live and recently dead oysters were enumerated and measured and the data were entered into a secure Access database maintained on secure SCDNR servers.

Disease and oyster health:

On the August 14 – 15, 2023 field days, SRS staff also collected oysters for the assessment of the oyster diseases Dermo (*Perkinsus marinus*) and MSX (*Haplosporidium nelsoni*), and for the assessment of several other oyster health metrics. At each of the six sites, 30 individual oysters were collected for Dermo and MSX and 30 individual oysters were collected for other oyster health metrics. Oysters were collected by stretching a tape along the reef at the approximate mean low water line, as determined by RTK GPS, and collecting oysters near the tape. Dermo and MSX samples were returned to the SCDNR laboratory where individual oysters were shucked and dissected. Dissected tissues were placed in formalin on August 17 – 18, 2023. Because the process is time-sensitive, all dermo samples were processed and read from August 24 – September 1, 2023, and the results are entered into spreadsheets on secure SCDNR servers. MSX samples, which are not time sensitive, are stored in the SCDNR laboratory and are scheduled for processing in the winter of 2023 – 2024. The 30 individual samples collected at each site for additional oyster health metrics were placed immediately on ice in the field and transported to the SCDNR campus at Fort Johnson, where they were delivered to NOAA staff on either the afternoon of collection or the following morning.

Time Period	Project Segment	Status
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Spring 2023	Deployment of oyster trays (not Town funded)	Complete, to be retrieved in 2024
Early July 2023	Project start	Documents signed 7/21/23
July-August 2023	Field sampling (tidal creeks, open water sites and oyster disease/demography)	Field sampling complete. Tidal creek, open water sites, oysters.
Fall/Winter 2023	Laboratory analyses incl. QAQC	In progress
Winter/Spring 2023/2024	Data analyses incl. QAQC. Collection of oyster trays	
Spring/Summer 2024	Writing and analysis	
Fall 2024	Report complete	
December 2024	Project end	



Figure 1. Locations of habitat trays and quadrat data collection by the SCDNR Shellfish Research Section in the May River watershed.



TOWN OF BLUFFTON

MAY RIVER WATERSHED ACTION PLAN ADVISORY COMMITTEE 2024 Meeting Schedule

Section VIII. Item #1.

MEETING DATES
January 25, 2024
February 22, 2024
March 28, 2024
April 25, 2024
May 23, 2024
June 27, 2024
July 25, 2024
August 22, 2024
September 26, 2024
October 24, 2024
*December 5, 2024

Discussion of time of day may be held prior to adoption of formal meeting schedule.

REGULAR MEETINGS ARE HELD THE 4th THURSDAY OF EACH MONTH AT 3:00 P.M.
EXCEPT NOVEMBER AND DECEMBER

* A combined November/December meeting will be held on 12/05/24 to accommodate the holidays

Please Note:

Meetings will be held on scheduled meeting dates unless otherwise advertised with FOIA compliance.